WHAT IS CLAIMED IS:

Amt. A1

1. A multi-domain alignment active-matrix liquid crystal display device comprising;

first and second transparent insulating plates arranged to oppose each other;

said first plate having disposed thereon a plurality of scanning lines and a plurality of signal lines, thin-film transistors provided in the vicinity of intersections between the scanning lines and signal lines, and pixel electrodes connected to the thin-film transistors;

said second plate having a black matrix provided with openings at areas that oppose said pixel electrodes, a color layer and counterelectrodes provided so as to oppose said pixel electrodes;

a liquid crystal being sandwiched between the opposing first and second plates and being controlled by voltage impressed across said pixel electrodes and said counterelectrodes;

wherein an orientation layer is provided on each pixel electrode of said first plate via an insulating film,

wherein said orientation layer is formed into a curved surface and orient molecules of the liquid crystal aligned in a direction normal to the curved surface of said orientation layer, and

wherein columnar spacers are provided between the two

opposing plates for regulating a panel gap therebetween.

2. The device according to claim 1, wherein said columnar spacer has an end portion on one side thereof that is disposed approximately at a center of said orientation layer formed on said first plate.

3. The device according to claim 2, wherein said orientation layer formed on said first plate defines a cavity recessed toward said first plate in a cross section taken along a line normal to said plate; and

wherein said columnar spacer has a diameter that becomes progressively smaller in the direction of said second plate.

4. The device according to claim 2, wherein said orientation layer formed on said first plate defines a protrusion directed toward said second plate in a cross section taken along a line normal to said first plate; and

wherein said columnar spacer has a diameter that becomes progressively larger in the direction toward said second plate.

5. A multi-domain alignment active-matrix liquid crystal display device comprising first and second transparent insulating plates arranged to oppose each other;

said first plate having disposed thereon a plurality of scanning lines and a plurality of signal lines, thin-film transistors provided in the vicinity of intersections

between the scanning lines and signal lines, and pixel electrodes connected to the thin-film transistors;

said second plate having a black matrix provided with openings at areas that oppose said pixel electrodes, a color layer and counterelectrodes provided so as to oppose said pixel electrodes;

a liquid crystal being sandwiched between the opposing first and second plates and being controlled by voltage impressed across said pixel electrodes and said counterelectrodes;

wherein each of said pixel electrodes on said first plate and an orientation layer formed on said pixel electrode defines a curved surface, and

wherein columnar spacers are provided between the two opposing plates for regulating a panel gap therebetween.

6. The device according to claim 5, wherein said orientation layer is adapted to orient molecules of the liquid crystal substantially at right angles to the planes of said plates.

7. The device according to claim 6, wherein said orientation layer is formed by oblique vapor deposition of SiO.

8. The device according to claim 5, wherein said columnar spacer has an end portion on one side thereof that is disposed approximately at the center of the pixel electrode

formed on said first plate.

9. The device according to claim 6, wherein said columnar spacer has an end portion on one side thereof that is disposed approximately at the center of the pixel electrode formed on said first plate.

10. The device according to claim 8, wherein said pixel electrode formed on said first plate defines a cavity recessed toward said first plate in a cross section taken along a line normal to said first plate; and

wherein said columnar spacer has a diameter that becomes progressively larger in the direction toward said second plate.

11. The device according to claim 9, wherein said pixel electrode formed on said first plate defines a cavity recessed toward said first plate in a cross section taken along a line normal to said first plate; and

wherein said columnar spacer has a diameter that becomes progressively larger in the direction toward said second plate.

12. The device according to claim 8, wherein said pixel electrode formed on said first plate defines a protrusion directed toward said second plate in a cross section taken along a line normal to said first plate; and

wherein said columnar spacer has a diameter that becomes progressively smaller in the direction toward said

second plate.

13. The device according to claim 10, wherein a wiring layer is provided beneath said pixel electrode, and said wiring layer electrically connects a source or drain electrode of the thin-film transistor and said pixel electrode.

14. The device according to claim 13, wherein said wiring layer extends in a direction substantially in agreement with the direction of a transmission axis of a polarizer provided on said first or second plate.

15. The device according to claim 1, wherein liquid crystal molecules contiguous to the surface of the columnar spacer are aligned substantially parallel to the surface of said columnar spacer.

16. The device according to claim 5, wherein liquid crystal molecules contiguous to the surface of the columnar spacer are aligned substantially parallel to the surface of said columnar spacer.

17. A multi-domain alignment active-matrix liquid crystal display device comprising;

first and second transparent plates arranged to oppose each other;

a liquid crystal being sandwiched between the first and second plates, and

pixel electrodes disposed on one of said plates and

counterelectrodes disposed on the other of said plates and adapted to apply voltage to the liquid crystal across the pixel electrodes and the counterelectrodes;

wherein an orientation layer is provided on each pixel electrode of one of said plates via an insulating film,

wherein said orientation layer is formed into a curved or slanted surface so as to orient molecules of the liquid crystal in a direction normal to the curved or slanted surface of said orientation layer, and

wherein columnar spacers are provided between the two opposing plates for regulating a panel gap between said plates.

18. The device according to claim 17, wherein said columnar spacers are disposed approximately at a center of said orientation layer on a pixel.

19. The device according to claim 18, wherein said orientation layer defines a cavity recessed toward one of said plates.

20. The device according to claim 19, wherein said columnar spacer has a side wall adapted to assist alignment of the liquid crystal molecules oriented by said orientation layer to secure multi-domain alignment thereof.

21. The device according to claim 20, wherein said orientation layer defines a protrusion directed toward one of said plates.

22. The device according to claim 21, wherein said columnar spacer has a side wall adapted to assist alignment of the liquid crystal molecules oriented by said orientation layer to secure multi-domain alignment thereof.

23. A multi-domain alignment active-matrix liquid crystal display device comprising;

first and second transparent plates arranged to oppose each other;

a liquid crystal being sandwiched between the first and second plates, and

pixel electrodes disposed on one of said plates and counterelectrodes disposed on the other of said plates and adapted to apply voltage to the liquid crystal across the pixel electrode and the counterelectrodes;

wherein an orientation layer is provided on each pixel electrode of one of said plates,

wherein said orientation layer and said pixel electrode are formed into a curved or slanted surface;

wherein columnar spacers are provided between the two opposing plates for regulating a panel gap between said plates.

24. The device according to claim 23, wherein said orientation layer is adapted to orient the liquid crystal molecules substantially at right angles to the planes of said plates.

25. The device according to claim 23, wherein said columnar spacers are disposed approximately at a center of said orientation layer on a pixel.

26. The device according to claim 23, wherein said pixel electrode defines a cavity recessed toward the counterelectrode.

27. The device according to claim 26, wherein said columnar spacer has a side wall adapted to provide multi-domain alignment of molecules of the liquid crystal.

28. The device according to claim 27, wherein said columnar spacer has a diameter increasing toward the counter pixel opposing the pixel electrode.

29. The device according to claim 28, wherein said orientation layer is adapted to orient molecules of the liquid crystal substantially at right angles to the planes of said plates.

30. The device according to claim 23, wherein said pixel electrode defines a curved or slanted protrusion protruding toward the counterelectrode.

31. The device according to claim 28, wherein said columnar spacer has a side wall adapted to provide multi-domain alignment of the liquid crystal molecules.

32. The device according to claim 31, wherein said columnar spacer has a diameter decreasing toward the counter pixel opposing the pixel electrode.

33. The device according to claim 32, wherein said orientation layer is adapted to orient the liquid crystal molecules substantially at right angles to the planes of said plates.

34. A multi-domain alignment active-matrix liquid crystal display device comprising;

first and second transparent plates arranged to oppose each other;

a liquid crystal being sandwiched between the first and second plates, and

pixel electrodes disposed on one of said plates and counterelectrodes disposed on the other of said plates and adapted to apply voltage to the liquid crystal across the pixel electrodes and the counterelectrodes;

wherein an orientation layer is provided at least on each pixel electrode disposed on one of said plates, and

wherein columnar spacers are provided between the two opposing plates for regulating a panel gap between said plates.

35. The device according to claim 34, wherein said columnar spacers have a side wall adapted to pre-align molecules of the liquid crystal surrounding each of the columnar spacers centering thereat.

36. The device according to claim 35, wherein said columnar spacers have a diameter varying along its axis.

37. The device according to claim 35, wherein said columnar spacers have a diameter decreasing or increasing toward one end thereof.

38. The device according to claim 35, wherein said side wall is adapted to pre-align molecules of the liquid crystal substantially parallel to the side wall.

39. The device according to claim 35, wherein said orientation layer is formed into a curved or slanted surface so as to orient molecules of the liquid crystal in a defined direction normal to the curved or slanted surface of said orientation layer.

40. The device according to claim 39, wherein said curved or slanted surface is formed into a recess.

41. The device according to claim 40, wherein said curved or slanted surface is formed into a protrusion.